

# Summary – Capabilities and Needs

**Honeywell**

PHM Technology	Honeywell Need	Honeywell Capability/Offerings
<i>Independent means of quantifying PHM technology and hardware performance</i>	Standards Definitions and means to quantify against them	Proprietary Methodologies
<i>Prognostics Modeling &amp; Simulation - complementary analog of the test &amp; validation facility</i>	Technology insertion partners	SMARTLab
<i>Prognostic Data Library (source and repository) for future technology insertion and lessons learned data</i>	Standard data sets - challenge problems	Application specific data sets & results
<i>Integration of PHM into the Maintenance Operation - Data Harvesting and Management</i>	Technology insertion partners	Proprietary Models
<i>Innovative Smart Sensor Technologies</i>	Yes - HON often buys these	Vibe, Corrosion, MEMS manufacturing
<i>Electronics Prognostics Methodology &amp; Algorithms</i>	New techniques	Statistical methods
<i>Machinery Prognostics Algorithms</i>	Technology insertion partners	Proprietary algorithms
<i>Structures Prognostics Algorithms</i>	Low cost detectors; structural test facilities	Subsystem Integration
<i>Incipient Corrosion Detection and Prognosis Algorithms</i>	Technology insertion partners	Flight-tested corrosion monitoring
<i>Automated Detection of Incipient Faults - Replaces manual test and troubleshooting</i>	See Prognostics	See Prognostics
<i>Specialized Diagnostics Sensing Technologies in Acoustic Emission, SAW Detection/Analysis</i>	Non-Intrusive Engine Bearing Fault and Leak Detection	Proprietary structural crack detection algorithms
<i>Software Diagnostics and Prognostics</i>	Technology insertion partners	Proprietary algorithms
<i>Automated Trending and Prognosis (Prediction) of Failure, ETC</i>	Robust subsystem monitoring; Technology insertion/integration partners	Proprietary methods